

Brazil Environment Program Profile

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Introduction

SO1 addresses global issues of biodiversity conservation, sustainable forest management, and climate change. To meet these challenges SO1 aims to have “environmentally and socio-economically sustainable alternatives for sound land use adopted beyond target areas” through programs in conservation management, reduced-impact forest management, agroforestry development for small producers, fire science and management activities, and environmental training and education.

SO2 addresses the global issue of climate change. To address this challenge, SO 2 aims to achieve “increased adoption by key actors of concepts, methods, and technologies for clean and efficient energy production and use” through programs in renewable energy and energy efficiency as well as cross-cutting programs addressing the energy sector broadly.

All environment activities implemented by the USAID Brazil Mission in Brasilia¹ are considered to contribute to the Agency’s Global Climate Change Initiative.² A major goal of the USAID/Brazil environment program is to help reduce global emissions of greenhouse gases by abating deforestation and fire destruction in the Amazon region and Atlantic Coast Rainforest regions; conserving biodiversity, including habitat; and encouraging the use of sustainable clean and efficient energy processes and natural resources.

¹ In Web document, this would be a link to the Web site of USAID Brazil at <http://www.embaixada-americana.org.br/usaidthm>

² Link to GCC Initiative document.

The USAID Brazil Mission does not have, and does not intend to develop, programs in other USAID goal areas, such as economic growth or democracy and governance. In keeping with USAID's overall global strategy, however, environment sector programs contribute to USAID efforts in these goal areas, and in poverty reduction, through their promotion of sustainable natural resources use and empowerment of local communities.

Regional and Global programs directly support Mission environmental programs.

SO 1: Environmentally and Socio-Economically Sustainable Alternatives for Sound Land Use Adopted Beyond Target Areas

Biodiversity Conservation

All of the activities in this section also contribute to the goal of sustainable forest management.

Conservation Management

Management Plan for Jaú National Park in the Central Amazon. The Worldwide Fund for Nature (WWF) and USAID are supporting the local nongovernmental organization (NGO) Fundação Vitória Amazônica (FVA) in its development of a management plan for Jaú National Park in the central Amazon. National-level technical officials have approved the plan. FVA developed the plan jointly with local communities by mapping resource use and converting these data into a geographic information system (GIS). The project also supports community organization; local leadership strengthening; and environmental education efforts related to the park, including radio programs and coordination. The effort includes support for legal resident documentation and environmental health and sustainable agriculture. It also facilitates activities under the solar energy assistance component of the Brazilian Government's National Program for Energy Development of States and Municipalities (PRODEEM). Women in buffer areas have been assisted in establishing small businesses based on non-timber forest products, and a craft center has been built to train women in improving the marketability of their products as well as serve as a locale for information exchange.

Extractive Reserves Project. USAID is also supporting WWF in establishing a management plan for extractive palm heart production in Amapá State. The project is focused on the sustainable use of an eastern Amazonian native palm, *Euterpe sp.*, which is being harvested from wild stands and being planted, in part to rehabilitate degraded land. The palm is a multiple stem ratoon species (it regenerates additional stems). WWF is cooperating with the government's Institute for the Environment and Renewable Natural Resources (IBAMA). WWF provides producers with training in palm heart processing and marketing, forest management, and cooperative management and administration. The project also involves development of a rotating fund to provide loans for equipment and technical assistance as well as systematic documentation of project successes for exchange with local stakeholders.

Ecotourism. A multi-year, USAID-supported ecotourism project is being completed with FY 1999 funding. The training program included eight participating programs:

- a. Chapada dos Veadeiros Project in the Cerrado near Brasília, involving local communities which promote and benefit from visitation to this national park and surrounding areas.

- b. Silves Project in the Varzea near Manaus, where the Amazon's first community-owned and operated ecotourism lodge is generating income for community lake management and protection.
- c. Extractive Reserve Project with the Organization of Rubber Tappers of Rondonia, which is developing local ecotourism projects near Costa Marques as well as longer visits to the Pedras Negras Extractive Reserve.
- d. Poço das Antas Project in the Atlantic Forest near Rio de Janeiro promotes day visits to view reintroduced golden-lion tamarins on private nature reserves as part of a strategy to increase protected areas.
- e. Mamirauá project in the Amazon Varzea near Tefé is developing high-end tourism focusing on wildlife observation in Brazil's first Sustainable Development Reserve.
- f. Pantanal Nature Parkway Project is promoting contemplative nature tourism among private ranch and hotel owners as an alternative to intensive sport fishing in this site, which is a candidate for designation as a wetland of international importance under the Ramsar Convention.
- g. Fernando de Noronha Base of the TAMAR Project is developing a commercial tourism enterprise in this marine national park as a means of achieving financial sustainability for Brazil's primary sea turtle conservation program.
- h. Superagui National Park Project in the Atlantic Rainforest of Parana State is evaluating the feasibility of ecotourism with local communities.

The effort included technical assistance visits to each of the sites and a series of four participatory workshops that are culminating in development of a training manual for community-based ecotourism development. The manual and training program included all aspects of ecotourism from planning and business and marketing aspects to environmentally sound infrastructure and visitor impacts to participation and partnerships and environmental education.

Biodiversity Policy Initiative. USAID supports WWF's efforts on Biodiversity Conservation Policy. This multifaceted effort has worked with civil society and Government leaders on the local, state, and national level. The project is addressing various aspects of conservation policy, including taxes and the statutes of parks and reserves. A study on the conservation statutes of parks and protected areas was conducted, and the results were disseminated. Environmental policy training courses are being conducted at various levels. This effort and the broader support for WWF's forests and biodiversity programs have helped them achieve a formal government commitment to protect 10 percent of all types of forests in Brazil.

Protection of the Atlantic Coastal Rainforest. USAID is supporting Conservation International and its local partner, the Institute for Social and Environmental Studies of Southern Bahia (IESB), in a three-year collaborative effort to integrate biodiversity conservation into income-generating activities and community-based development in Brazil's Atlantic Coastal Rainforest, one of the most diverse and endangered ecological regions in the hemisphere. Project components include an ecotourism demonstration project, agroforestry extension to forest-conserving farmers, research and advocacy on logging and land reform policies, and the use of geographic information systems in the planning and management of protected areas. The project also focuses on raising community awareness of the economic benefits of forest protection over the long-term, in the hope that local communities can themselves replicate the project's successes with their neighbors.

A major project success has been the establishment of a new 7,000 hectare (ha) forest reserve and state park, the Serra do Conduru State Park, in Southern Bahia. The establishment of the new park doubles the amount of protected area in Bahia's Atlantic Coastal Rainforest to 14,000 ha and increases opportunities to link coastal development with nature-based tourism. Establishment of the new park is a precondition for a \$20 million tourism/road development loan from the Inter-American Development Bank (IDB). The state government will contribute \$2 million to support the reserve.

Conservation International and IESB have also been successful in promoting reforms of logging policy in Bahia State. Images highlighting findings of research IESB conducted to document the unsustainable nature of commercial logging in the region were aired on national television last year, causing IBAMA to suspend sawmill and logging licenses operating there indefinitely.

Management Plan for Serra do Divisor National Park in the Western Amazon. Since 1994, The Nature Conservancy (TNC) has been working in partnership with IBAMA and a Brazilian NGO, SOS Amazônia, to develop and implement a conservation and management plan for the Serra do Divisor National Park. The plan strives to address both the human socio-economic and the biological conservation needs of this important 843,000 ha park in Western Acre State on the border with Peru. The project involves institutional strengthening (of SOS Amazônia), initial reconnaissance and rapid ecological assessment of the park, an information exchange workshop, elaboration of a park management and integrated regional development plan, long-term research definition, and dissemination of results.

Parks in Peril (PiP) Project in the Guaraqueçaba Environmental Protection Area in Paraná State. This partnership between USAID, TNC, a local NGO, the Society for Wildlife Research and Environmental Education (SPVS), and government aims to transform "paper parks" (those that are legally recognized but lacking in on-the-ground protection) into functioning protected areas. In 1998, USAID/Brazil and USAID/Washington approved the initial three-year work plan for a new TNC project in the Atlantic Coastal rainforest in southern Brazil, one of the hemisphere's most diverse and endangered ecological regions. This activity is being implemented under PiP with TNC's local partner, SPVS. The project will implement a management plan for the Guaraqueçaba Environmental Protection Area in Paraná State. This includes working with law enforcement agencies to safeguard the region, including information exchange on the critically endangered red-tailed parrot.

G-7 Science Centers and Directed Research Component. Through this effort, the counterpart government agency awards competitive grants for teams of qualified Brazilian scientists based at Amazonian research centers, universities, and NGOs to address relevant natural resource issues. Two key areas of interest include (a) generation of knowledge to understand the structure and function of Amazonian ecosystems and the effects of human actions on ecosystem processes and (b) generation of scientific and technological knowledge applied to the sustainable use of such ecosystems, including consideration of the economic, social, cultural, and ethnic bases for sustainable use.

Sustainable Forest Management

All of the activities in these sections also contribute to the goal of biodiversity conservation.

Reduced-Impact Forest Management

Models of Improved Forest Management. USAID supports the Tropical Forest Foundation (TFF) and U.S. Department of Agriculture Forest Service (USFS) in providing models of improved forest management as an alternative to traditional destructive industrial logging. USFS has recently led a cooperative effort, including the TFF, the University of Florida, and Institute for Man and the Amazon Environment (IMAZON) in a study on “Financial Costs and Benefits of Reduced-Impact Logging Relative to Conventional Logging in the Eastern Amazon,” which was published in July 1999. This diagnosis of the timber sector reveals that 86 percent of Amazon wood products are consumed in Brazil. Growing domestic awareness of this fact spurred 13 of the largest Brazilian timber buyers to form the Brazilian Buyers Group of Certified Timber, an important step toward sustainable forest management.

USAID-supported studies have also shown that reduced-impact forest management (eligible for the kind of certification these timber buyers will require) is more profitable than conventional damaging harvest practices, resulting in additional environmental benefits, such as reduced exposure of mineral soils, fewer roads and skid trails, less soil compaction, less fire susceptibility, and maintenance of higher levels of both soil and vegetative carbon. Related studies are also underway with TFF cooperation to examine issues that include the impacts on faunal variation of different kinds of high versus reduced-impact management.

WWF, with USAID funding, is supporting demonstration of sustainable forest management. In partnership with IMAZON, it has developed a manual and video based on five years of data from applied forest research. The demonstration area, in Paragominas, on which the video and manual were based, compares managed versus non-managed forests collecting data on forest growth (50 parcels), regeneration in post-harvest clearing area (60 parcels), and vine ecology. This site continues to be monitored. The project has developed certification criteria for timber production for Brazil, and the government has adopted many of the program’s management techniques.

Training in Sustainable Forest Management. USAID also sponsors forest management training in the Amazon. The WWF/State University of New York (SUNY) joint program helps communities implement sustainable forest management projects through a series of workshops that bring together representatives of forest communities, technicians, practitioners, and timber buyers to share experiences, exchange information, and disseminate lessons learned. The report on the II Workshop on Community Forest Management, which took place in 1999 in Pará, is completed and being distributed.

The USAID training program with the USFS and TFF, supported by the Agency since 1995, includes a partnership with five timber companies to establish criteria for reduced-impact harvesting and training of loggers in alternative reduced-impact practices. In recent years parties ranging from the logging industry to the Brazilian government have shown increasing interest in the program’s results.

Community Forestry and Forest Inventories. Woods Hole Research Center is involved in mapping the Chico Mendes Extractive Reserve in Acre State. Forest resource inventories are being done in several native rubber tracts in the reserve. The potential for forest enrichment and agroforestry systems will also be evaluated. The newly elected state Governor is recruiting support for development of a reserve management plan.

Fire Science and Management

Fire Preparedness Activities. The 1997-1998 El Niño drought had a severe affect on Brazilian forests in the northernmost Roraima state and in the southern Amazon "arc of deforestation" between July and

October 1998. Fires in the region are a significant emission source of greenhouse gases that contribute to Global Climate Change. USAID/Brazil augmented its long standing wildfire support for the Woods Hole Research Center (WHRC) and the U.S. Forest Service to pinpoint trouble spots and assist the Government of Brazil's fire control efforts.

WHRC working with the Amazonian Institute for Environmental Research (IPAM), a local NGO, published a cover article in *Nature* on undetected fires in the Amazon and another article in *Science* on a feedback loop between forest fires and the increasing probability of future burning. Media in Brazil, the United States, and Europe widely reported on these studies. These and other WHRC and IPAM ongoing efforts are contributing to an increasing role for science in forest management and conservation public policy in Brazil. A study is also being conducted to evaluate the impacts of the community forest fire prevention program over the last three years. Interviews with 50 property owners were conducted on history of land use of each property, including changes in vegetation cover, fire history, prevention and control measures, and the economic impacts of fires.

G-7 Fire Prevention and Control. USAID also directed the G-7 Pilot Program (see below) contributions on an urgent basis to the Amazon Working Group (GTA) to mobilize 12,000 monitors in a fire prevention effort directed to 120,000 small landowners in the Brazilian Amazon. As a result of this successful awareness raising campaign, fire dissemination efforts have continued to expand during 1999 focusing on local, community-based alternatives to the use of fire in traditional agriculture rather than fire suppression.

Fire Monitoring and Fire Risk Information Dissemination. Additional USAID-supported fire science and fire management activities are underway. A U.S. State Department contribution to the USAID-initiated Rain Forest Trust Fund with the World Bank has enabled a coordinated program of support to the Brazilian Government for fire monitoring, fire and smoke impact management, and future fire suppression operations. The USFS's Pacific Southwest Research Station (PSW) is currently implementing this program, which involves IBAMA, NASA Ames Research Center (ARC), Brazilian National Space Research Institute Weather Forecast and Climate Studies Center (INPE/CPTEC), Scripps Institution of Oceanography Experimental Climate Prediction Center (SIO/ECPC), the Brazilian Airforce (FAB), and the National Oceanic and Atmospheric Administration (NOAA) National Environmental Satellite, Data, and Information Service (NESDIS).

Fire-Control Techniques. In an on-going program, USAID is supporting the Woods Hole Research Center in cooperation with IPAM on work to research, disseminate, and implement fire control techniques in Brazil. Scientists are mapping fire-prone (logging) areas in the eastern Amazon, and working with farmers in nearby communities to promote simple fire control techniques, such as controlled burns, to prevent accidental fires. One village, Del Rey, implemented a fire prevention policy on their own after women and other leaders determined that uncontrolled fires were causing too much damage to perennial garden plots and cattle. Engaging women as change agents has been key to disseminating these experiences to other communities. The Brazilian government has also invited Woods Hole to build on this work to help design a fire prevention program for the entire Amazon.

Fire Risk and Control. Fire brigades trained in brush fire control by the U.S. Forest Service with USAID support helped fight El Niño-driven fires in mid-March 1998 in the Roraima State. USFS is also working with the Tropical Forest Foundation and conducting research on fire risk assessment under reduced impact harvesting and traditional selective logging in Pará.

The USFS and WHRC/IPAM partnership continue to quantify the effects of burning on the Amazon forest and Cerrado (savanna) ecosystems, while surveying the extent of fire damage on private land from ground surveys and with satellite/Geographic Information System (GIS) mapping. A new field study that will direct rainfall away from a one hectare forest plot is currently underway near Santarem in the lower Amazon and aims to understand the effects of increasingly frequent and severe droughts on Amazonian forests and their susceptibility to fire.

Agroforestry Systems

Agroforestry Development Program for Small Producers in the State of Acre. The University of Florida is working with PESACRE (Research and Extension in Agroforestry Systems Group), a local, non-governmental Brazilian institution, to carry out a program of substantive research and extension activities in the areas bordering the Amazonian forest. The program seeks to develop and implement alternatives to diversifying small-scale agriculture and agroforestry production systems in sustainable ways. The goal is to (1) contribute to higher levels of income and improved quality of life for rubber tappers, agriculturists, and indigenous groups; (2) permit stable settlement patterns for rural populations; (3) reduce the negative environmental impact of production activities; (4) reduce social pressures in urban centers; and (5) strengthen the technical and institutional basis for the formulation of agrarian policies that can reduce pressures for deforestation in the State of Acre.

The G-7 Pilot Program to Conserve the Brazilian Rainforest

G-7 Pilot Program to Conserve the Brazilian Rainforest (PPG-7). USAID contributes to the Rain Forest Trust Fund, managed by the World Bank, as part of the multilateral G-7 Pilot Program. This fund supports programs that are part of a multilateral effort and are not directly USAID managed. As part of a multilateral effort, these programs are not reported under our indicators as part of the R-4 process nor counted as part of USAID's Global Climate Change Initiative. The Mission staff, however, does expend substantial time and effort ensuring that these activities are carried out in the most effective way. They also play an important role in funds allocation and are responsible for reporting on them in Congressional Notification procedures. These programs, therefore, are being included in this profile.

USAID/Brazil participates actively in this multilateral World Bank-managed \$350 million project. In late 1997, the Clinton Administration committed the United States Government to provide an additional \$10 million over five years to support the Program. The Agency has provided \$5.25 million to date. This effort has primarily been directed toward the Program's Science Centers and Directed Research Component; however, owing to the urgent fire problem in the Amazon, USAID also directed \$1 million of G-7 funds to fire prevention and control efforts. These efforts are reported above in the sections on Conservation Management and Fire Science and Management. Additionally, in response to the fire problem, USAID facilitated a U.S. State Department contribution of \$750,000 for fire management and risk information dissemination to the G-7 Pilot Program Trust Fund in the World Bank. This effort is also reported above in the Fire section.

NASA's "Large-Scale Biosphere-Atmosphere Experiments in Amazonia." Grant funds will complement NASA's \$25 million contribution to the Brazilian program, "Large-Scale Biosphere-Atmosphere Experiments in Amazonia," and Brazilian funds will match them. USAID has directed \$2.5 million for emergency infrastructure and communications needs at two research institutions in the

Brazilian Amazon. These institutions, the Museu Paraense Emilio Goeldi in Belém and the Instituto Nacional de Pesquisas da Amazonia in Manaus, house irreplaceable reference collections and require assistance in maintaining the infrastructure that protect these collections.

Environmental Education and Communication

All of the activities in this section also contribute to the goals of biodiversity conservation and sustainable forest management.

Environmental Education and Training

Training of Brazilian Conservation Professionals ('Natureza e Sociedade Program'). In partnership with SUNY, WWF sponsors a competition, open to Brazilian conservation professionals, for individual grants to support training programs mainly in Brazil and the United States. Grants are available for graduate student research, degree program support, and short courses. An independent panel, including representatives of WWF/SUNY, USAID, and others, makes the selection. Exchange of technical staff between USAID technical partners is also supported.

Environmental Education. WWF is working to develop a number of projects combining conservation and development goals in the field of environmental education. A primary focus of the effort is to provide training to integrated conservation and development projects. The aim is to ensure effective local participation in the conservation aspects of each project. Various channels of communication are encouraged, including local radio programming. A recent workshop included environmental educators from 12 projects. The workshop has produced a study compiling a practical report from each project for distribution. Education activities include training workshops, participatory planning discussions between projects, technical assistance, exchange visits, and electronic networking between projects. This WWF effort also receives support from other donors.

Biological Dynamics of Forest Fragments Project (BDFFP). This bi-national research and training program between the Brazilian National Institute for Amazonian Research (INPA), and the Smithsonian Institution, receives funding from USAID/Brazil for training and outreach. The BDFFP targets young professionals in tropical biology and conservation science, providing them with training through graduate research; a student research fellowship program; a symposia program; and recently, a graduate-level field course. In this last activity, BDFFP trained 80 young graduate students in an intensive, one-month long field course modeled after the successful Organization for Tropical Studies (OTS) field courses in Costa Rica. Continuing activities include developing a decision-makers' course for natural resource management professionals and a professional workshop series in knowledge transfer. These activities as a whole will strengthen the human resource base of young professionals in Brazil, while allowing the BDFFP to play a significant role in the area of natural resource management in the Amazon region.

Cross-Cutting Programs

Managing Ecosystems and Resources with Gender Emphasis (MERGE) Program. The MERGE Program – focusing on institutionalizing gender issues within the environmental program through collection and analysis of socioeconomic data disaggregated by gender – supports and trains local

institutions and individuals and helps to strengthen their capacity to incorporate gender issues in natural resources management. Networks among Brazilian NGOs with gender interests in the Amazon are also strengthened through the program. The University of Florida implements MERGE.

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SO 2: Increased Adoption by Key Actors of Concepts, Methods, and Technologies for Clean and Efficient Energy Production and Use

Energy Efficiency

Policy

Moving Markets for Energy Efficiency (MMEE)³ Project. This activity operates in three countries, including Brazil, with the goal of spurring greater private sector-led delivery of energy efficiency services. The project aims to develop mechanisms to promote private sector solutions and public-private partnerships and the related infrastructure to implement market-based strategies for key sectors. This project also supports the development of "best practices" guidebooks, case studies, decision frameworks, and other resource materials for government policy-makers, regulators, financial institutions, utilities, and private sector entrepreneurs. Workshops will be conducted to assist in the definition and implementation of specific local and/or regional initiatives for promoting energy efficiency activities. In July 1999, a MMEE mission to Brazil collected information on laws, regulations, markets, etc., and updated the country working paper – including specifying barriers and “drivers” in the development of sustainable energy service companies (ESCOs) – to serve as background for workshop material.

Technology

Technical Assistance on Energy Efficiency Projects. USAID plans to provide technical assistance on identifying a pipeline of cogeneration and energy efficiency projects; increasing business capabilities of ESCOs; promoting actions to improve efficiency services and cogeneration supply and awareness in key Brazilian sectors; assessing subsectors for cogeneration and energy efficiency project potential; and increasing information available to consumers and financial agents on opportunities and barriers for cogeneration and energy efficiency projects.

Renewable Energy

Renewable Energy Project Support Office (REPSO). Through Winrock International, USAID is building a network of NGOs to increase the use of renewable energy in developing countries. Known as Renewable Energy Project Support Offices (REPSOs), these in-country facilities can partner with local institutions and can provide the technical and financial assistance necessary to identify and evaluate renewable energy projects. REPSO-Brazil is located in Salvador (Bahia state) and is staffed by Winrock and industry experts. REPSO-Brazil provides assistance in local market and capacity building, information dissemination, project identification and development, and industry-based training in collaboration with other energy program initiatives.

Policy

Technical Assistance to PRODEEM/MME – Resident Advisor. PRODEEM is the Ministry of Mines

³ Link to <http://www.globalefficiency.net>

and Energy's program for rural off-grid energy services. During FY99, USAID supported a policy advisor to assist PRODEEM in (a) preparing for its restructuring to support development of renewable energy markets with improved monitoring of private-sector participation; (b) supporting implementation of Sustainable Markets for Sustainable Energy's Inter-American Development Bank program, and (c) coordinating its activities with USAID's other renewable energy activities. Additionally, USAID is seeking ways to involve the United Nations Development Program (UNDP) in providing preparatory technical assistance to develop a UNDP management unit in PRODEEM, capable of housing a fully fledged UNDP project targeted to Global Environment Facility (GEF) and the Clean Development Mechanism (CDM).

Cross Cutting Programs

Policy

Technical Assistance Program in the Area of Regulatory Reform. USAID plans to provide technical assistance on energy policy implementation to the Inter-Ministerial National Energy Policy Council (NEPC) and its Executive Secretariat (National Department of Energy Policy (DNPE)/Secretariat of Energy (MME). Technical assistance will focus on identification, selection, design, analyses, and development of policy frameworks in policies related to energy, climate change, and environment. According to consultations and requests from MME, this technical assistance initiative will support NEPC's decisions and potentially provide clearer frameworks under which Brazil can foster climate change energy projects. Under the DNPE/MME's coordination, Mission planners foresee that a wide base of government and private stakeholders will be able to provide inputs to energy policy making in Brazil.

Regulatory Partnership Program. USAID/Global funded the U.S. Energy Association (USEA) to foster a two-year regulatory partnership between the ANEEL and three U.S. public utilities commissions (Iowa, Florida, and Oregon) to facilitate the sharing of regulatory expertise between the U.S. and Brazil. The regulatory partnership, initiated in FY98, makes available the long experience of U.S. regulatory commissions and their views and assessment of how to develop policy and regulation mechanisms capable of improving integrated resource planning, decentralizing regulatory functions, and building regulatory institutional capacity. Workshops, internships, and executive exchanges have been successfully developed under this partnership.

Training and Outreach

Brazil Energy Training and Outreach Program (BETOP). USAID is planning to implement a clean energy training and outreach program. This program, reaching governmental and nongovernmental organizations and for-profit and non-profit institutions, will cover technical, regulatory, and financial topics. By strengthening the internal capacity of key organizations and preparing them for their new roles in the restructured energy sector, USAID seeks to ensure the independence and sustainability of the key actors. BETOP focuses on design, development, and implementation of training courses and outreach initiatives in partnership with local institutions to promote private sector involvement in identifying, financing, structuring, implementing, operating, and monitoring clean and efficient energy projects; assist in enhancing the capacity of Brazilian energy regulatory bodies; and build the capacity of Brazilian banks, project developers, and end users to successfully structure the financing of clean energy projects.

Finance

Technical Assistance in the Development of Energy Financing Mechanisms. USAID plans to provide technical assistance to local partners in developing energy financing mechanisms and business plans that facilitate the incorporation of energy efficiency and renewable energy lines of credit into loan packages, investment funds, guarantees, and financing programs. USAID will concentrate on three areas: (a) support for the design and financing of a renewable energy-based water pumping program; (b) support for the design of an industrial cleaner production fund; and (c) establishment of the linkage with the USAID DCA, and analysis and design of the DCA mechanism to support these two financing programs.

Technical Assistance in Developing, Structuring, and Packaging Renewable and Energy Efficiency Projects. USAID plans to provide technical assistance to local partners for project identification, development, pre-feasibility studies, and project financial structuring/packaging that aim soft or hard match making between U.S./Brazilian firms in the areas of renewable energy and energy efficiency. In the course of assistance, contractors shall attempt to make use of credit/guarantee lines available in the World Bank, USAID's Development Credit Authority (DCA), Trade Development Agency (TDA), the U.S. Export Import Bank, and local and international banks and funds as well as format projects under Kyoto Flexibility Mechanisms, such as CDM. This activity will also include three workshops focusing on financing for off-grid renewables, grid-connected renewables, and energy efficiency projects.

Technology Cooperation Agreement Pilot Project (TCAPP). USAID, USEPA, and USDOE support the Technology Cooperation Agreement Pilot Project (TCAPP) that assists in fostering private sector investment in developing countries. TCAPP provides a vehicle for clean energy companies to remove barriers and accelerate investment in new energy markets. The pilot phase was launched in August 1997 to facilitate technology transfer of clean energy technologies in Brazil, China, Indonesia, Kazakhstan, Mexico, and the Philippines. Clean energy sources include renewable energy, energy efficiency, and natural gas. The Business Council for Sustainable Energy, an umbrella organization for companies in the natural gas, renewable energy, and energy efficiency sectors with alliances worldwide, coordinates private sector participation and outreach activities globally under TCAPP.

Brazil has been involved in TCAPP since its beginnings in 1997. Meetings in both the United States and in Brazil have resulted in the determination of priority technologies and the completion of a technology framework to be implemented in coming years.

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The Brazil Environment Program Profile is one in a new series of reports that describe USAID-supported environment activities in priority countries. It aims to cover all USAID environment activities in Brazil, whether supported by the Mission, Regional Bureau, or Global Bureau. The document will help USAID staff working in other regions and colleagues from other development agencies to better understand the breadth and depth of the Agency's environment program in Brazil. Comments on this document can be submitted to kpage@genv.org.

This profile — like the ones on other USAID priority countries that will follow — focuses on activities on the ground, an area not covered by most other readily available documentation on USAID environment programs. It also feeds this information to a revolving database that will, once a number of profiles have been completed, track activities, provide information on environment programs in a number of sectors and regions, and be updated regularly.

Any database, however, is only as good as the information that populates it. Therefore, we ask that you keep this in mind when circulating descriptions of activities and technical reports and PLEASE SHARE COPIES of your information with our audience, by making sure they are included in our databases. Fact sheets, program summaries, and other similar documentation are welcome. Thank you.

Questions about this and other services of USAID's Environment Information Clearinghouse can be sent to:

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